# MONTANA DEPARTMENT OF TRANSPORTATION

# HIGHWAY PROJECT COST ESTIMATING AND MANAGEMENT (HPCE)



CONTRACT#: 308059, RESEARCH PROJECT#: 8189

DATE: MAY 2, 2007

MONTHLY PROGRESS REPORT # 2

PERIOD: APRIL 1, 2007 - APRIL 30, 2007







#### PREPARED BY:

SIERRA TRANSPORTATION ENGINEERS, INC. 1005 TERMINAL WAY, SUITE 125 RENO, NV 89502

#### PREPARED FOR:

Montana Department of Transportation 2701 Prospect Avenue P.O. Box 201001 Helena, MT 59620-1001

# TABLE OF CONTENTS

PAGE
Introduction
Task 1 – MDT's Structure, Operations, and Current Process
Task 2 – Critical Review of NCHRP 8-49 Literature Review
Task 3 – Recommendations
Task 4 – Consultants Visits and Schedule
Task 5 – Develop Detailed Strategic Procedure
Task 6 – Implementation Plan
Project Schedule and Financial Summaries
LIST OF FIGURES
PAGE
Figure 1. Expenditures Versus Planned Budget for Each Task

#### INTRODUCTION

Sierra Transportation Engineers, Inc. (STE) is pleased to provide its second monthly progress report for Montana Department of Transportation (MDT) contract number 308059, titled "Highway Project Cost Estimating and Management (HPCE)." This monthly progress report covers the period April 1, 2007 to April 30, 2007.

The overall objective of this project is to develop a comprehensive document to determine the best practice of efficient highway cost estimating for Montana. Upon completion of this research, recommendations are to be made for improvements to the current cost estimation process.

The specific tasks identified in the project work plan are:

- Task 1 MDT's Structure, Operations, and Current Process
- Task 2 Critical Review of NCHRP 8-49 Literature Review
- Task 3 Recommendations
- Task 4 Consultant Visits and Schedule
- Task 5 Develop Detailed Strategic Procedure
- Task 6 Implementation Plan

The following paragraphs describe the work accomplished during this reporting period under each task.

## TASK 1 - MDT'S STRUCTURE, OPERATIONS, AND CURRENT PROCESS

During this reporting period STE continued its efforts on understanding MDT's current structure, operations and procedures for cost estimation. A draft data request template called MDT HPCE data request template was created using MS Excel spreadsheets. STE provided an electronic copy of the template to MDT for review and comment on April 13, 2007. Once the template is finalized, it will be used to provide project cost data to STE on at least 10 (and preferably 20) MDT projects. As discussed in the kick-off meeting, STE will request data on projects of different types, categories, and from different districts. STE will also ask for projects that were under, over, and close to the original base cost.

During this reporting period STE continued working with the panel on finalizing definitions for base cost and project categories and providing feedback on some of the terminologies used in the MDT HPCE data request template.

#### Worked planned for next month

STE will continue reviewing the current MDT structure, operations, and processes. In particular, STE will work with the panel to finalize the MDT HPCE data request template. STE will also provide its pre-trip questions and survey for different project stages to MDT. The different stages of the project include: planning, programming, advanced planning/preliminary design, final design, ad/bid/award, and construction.

#### TASK 2 – CRITICAL REVIEW OF NCHRP 8-49 LITERATURE REVIEW

During this reporting period STE continued its review of NCHRP Report 574, "Guidance for Cost Estimation and Management for Highway Projects During Planning, programming, and Preconstruction." STE is utilizing NCHRP 8-49 findings in developing its pre-trip questions and surveys, which will be submitted to MDT during the month of May, 2007.

#### Worked planned for next month

STE will continue reviewing the NCHRP 8-49 report and its literature review.

#### TASK 3 – RECOMMENDATIONS

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity is planned.

#### TASK 4 – CONSULTANTS VISITS AND SCHEDULE

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

### Worked planned for next month

No activity is planned.

#### TASK 5 – DEVELOP DETAILED STRATEGIC PROCEDURE

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity planned.

#### TASK 6 – IMPLEMENTATION PLAN

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity planned

## PROJECT SCHEDULE AND FINANCIAL SUMMARIES

Figure 1 shows the project expenditures versus planned budget for each task. Figure 2 represents the cumulative project expenditures versus budget for the entire project to date.

All project activities are per schedule and the project is within planned budget. STE does not foresee any problems to report.

\$250,000 As of April 30, 2007 ■ Cumulative to Date ■ Budget \$200,000 \$150,000 \$100,000 \$50,000 \$0 Task 1 Task 2 Task 3 Task 4 Task 5 Task 6 **Total Project** 

Figure 1. Expenditures Versus Planned Budget for Each Task

Figure 2. Cumulative Expenditures Versus Budget

